# United States Patent [19]

**Kuhlman et al.**

[11] **4,412,255**

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[54] **TRANSPARENT ELECTROMAGNETIC SHIELD AND METHOD OF MANUFACTURING**


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[58] **Field of Search** ..... 358/245, 255, 252, 253; 174/35 MS; 219/10.55 D



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[57] **ABSTRACT**

A transparent electromagnetic shield adapted for use on an information display device in electronic equipment. First and second transparent substrates each having major front and back surfaces are adapted to be mated together with a front surface of one substrate facing a back surface of the other. A conductive wire screen is interposed between the first and second substrates in physical contact with one of the mating front and back surfaces thereof and a single layer of polymer laminating material is interposed between the screen and the other of the mating surfaces. The layer of polymer laminating material fills the apertures in the screen and contacts portions of both mating surfaces to bond the screen and the two substrates together. An embodiment in which the wire screen is provided in contact with a conductive transparent optical coating on one of the mating surfaces of the substrates is also disclosed. A conductive metal tape is wrapped around the edge of the substrate in contact with the wire screen to serve as a bus bar contact to the screen, enabling use of a screen the same size as the substrate.


**15 Claims, 6 Drawing Figures**